

Title (en)

SHUTTER APPARATUS WHICH ALSO SERVES AS A DIAPHRAGM

Publication

**EP 0415409 A3 19910529 (EN)**

Application

**EP 90116652 A 19900830**

Priority

- JP 22578889 A 19890831
- JP 22578989 A 19890831
- JP 22579089 A 19890831

Abstract (en)

[origin: EP0415409A2] This invention relates to a shutter apparatus which also serves as a diaphragm. In this invention, there are provided two drive control modes for the shutter apparatus; the first mode for controlling a control voltage to be supplied to a shutter driving motor and the second mode for controlling the duty of a voltage to be applied to the motor. These two modes are switched according to factors such as a power source voltage, whereby optimum shutter control is implemented.

IPC 1-7

**G03B 9/00**

IPC 8 full level

**G03B 7/097** (2006.01); **G03B 7/10** (2006.01); **G03B 9/24** (2006.01)

CPC (source: EP US)

**G03B 7/097** (2013.01 - EP US); **G03B 7/10** (2013.01 - EP US); **G03B 9/24** (2013.01 - EP US)

Citation (search report)

- [A] US 4811044 A 19890307 - TANAKA YOSHIHIRO [JP], et al
- [A] GB 2036992 A 19800702 - POLAROID CORP
- [A] US 4475802 A 19841009 - ONOGI KENJI [JP]

Cited by

FR2684460A1; FR2744252A1; FR2744251A1; US5953545A

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 0415409 A2 19910306**; **EP 0415409 A3 19910529**; **EP 0415409 B1 19950802**; DE 69021297 D1 19950907; DE 69021297 T2 19960104; US 5079583 A 19920107

DOCDB simple family (application)

**EP 90116652 A 19900830**; DE 69021297 T 19900830; US 57531190 A 19900830